3. The recombinant influenza virus according to claim 1, wherein one or more of the regular viral RNA segments, differing from said at least one ambisense RNA segment, comprises a vRNA encoding a foreign gene, preferably one or more of the regular viral RNA segments has (have) been exchanged for a vRNA encoding a foreign gene.

A2

5. The recombinant influenza virus according to claim 1, in which the terminal viral RNA sequences of one or more of the regular segments and/or of the at least one ambisense RNA segment, which are active as the promoter signal, have been modified by nucleotide substitutions in up to five positions, resulting in improved transcription rates of both the vRNA promoter as well as the cRNA promoter as present in the complementary sequence.

A3

10. The recombinant influenza virus of claim 6, wherein the 5' terminal nucleotide sequence comprises the modifications U3A and A8U resulting in a 5'-terminal sequence of 5'-AGAAGAAUCAAGG.

A4

11. The recombinant influenza virus according to claim 1, which is a recombinant influenza A virus.

12. The recombinant influenza virus according to claim 1, in which the foreign gene(s) in ambisense covalent junction with viral gene(s) code for proteins and/or glycoproteins which are secreted from cells infected with the recombinant virus.

13. The recombinant virus according to claim 1, in which the foreign gene(s) in ambisense covalent junction with viral gene(s) code for proteins or artificial polypeptides designed to support an efficient presentation of inherent epitopes at the surface of infected cells, for stimulation of a B cell and/or T cell response.

14. A method for the production of recombinant influenza viruses as defined in claim 1 comprising

(a) RNA polymerase I synthesis of recombinant vRNAs *in vivo,* in ambisense design,

(b) followed by infection with an influenza carrier strain constructed to include flanking ribozyme target sequences in at least one of its viral RNA segments which is (are) to be replaced by the ambisense segments of step (a), and

(c) thereafter selective vRNA inactivation through ribozyme cleavage.

15. A pharmaceutical composition comprising a recombinant influenza virus according to claim 1.

16. Method of using a medicament comprising a recombinant influenza virus according to claim 1 for vaccination purposes.

17. The method according to claim 16, wherein the medicament

(a) is suitable against influenza and/or against other infections;

(b) is present in form of inactivated preparations; and/or

(c) is present in form of live recombinant viruses.

18. Method of using an agent comprising a recombinant influenza virus according to claim 1 for somatic gene therapy.

19. Method of using an agent comprising a recombinant influenza virus according to claim 1 for transfer and expression of foreign genes into cells infected by such viruses.

20. Method of using an agent comprising a recombinant influenza virus according to claim 1 for transfer and expression of RNA molecules into cells infected by such viruses.

21. The method of claim 20, wherein the RNA molecules to be expressed are antisense sequences or double-strand sequences relative to the target cell cellular mRNA molecules, and/or the agent is suitable for sequence-specific gene silencing, preferably by antisense RNA or RNA interference mechanisms.

22. The method according to claim 18, wherein the agent is applicable in *ex vivo* and *in vivo* application schemes.

23. A method for the production of proteins or glycoproteins which comprises utilizing a

recombinant influenza virus according to claim 1 as expression vector.

25. A method for preventing and/or treating influenza which comprises administering an effective amount of a recombinant influenza virus according to claim 1 to the mammal to be treated.

26. A method for somatic gene therapy, which method comprises subjecting the organism to be treated with a recombinant influenza virus according to claim 1.

27. A method for transfer and expression of foreign genes into cells, and for transfer and expression of RNA molecules into cells, which method comprises infecting the cells with a recombinant influenza virus according to claim 1.

28. Method of using an agent comprising a recombinant influenza virus according to claim 1 for autologous immunotherapy.

29. A method for an immunotherapy which comprises *ex vivo* infection of immune cells with a recombinant influenza virus according to claim 1, and introduction of the transduced cells into the patient.

30. A method for the induction of antibodies which comprises utilizing a recombinant